

FIGURE 1A

FIG. 1A is a block diagram of a processing system 10. The system 10 includes an input data stream 12, a data interface 12, a crushing unit 14, a block management unit 24, a compressing unit 26, and a storage unit 28. The crushing unit 14 includes a symbol dictionary 18, an instruction format dictionary 16, an ordered list(s) 20, a subset dictionary 22, a decomp module 30, a renaming module 34, an analysis module 32, and an eliminate module 36. The storage unit 28 has an output arrow pointing to the right.

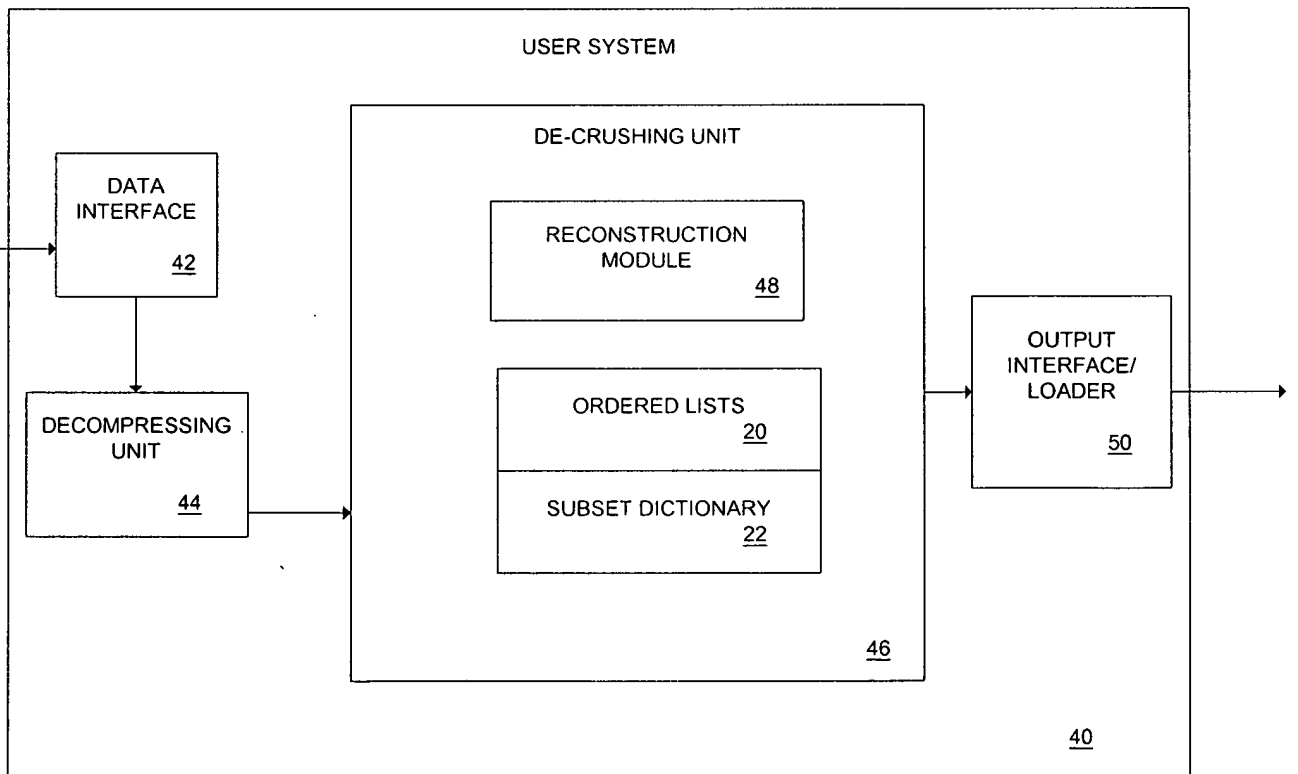


FIGURE 1B

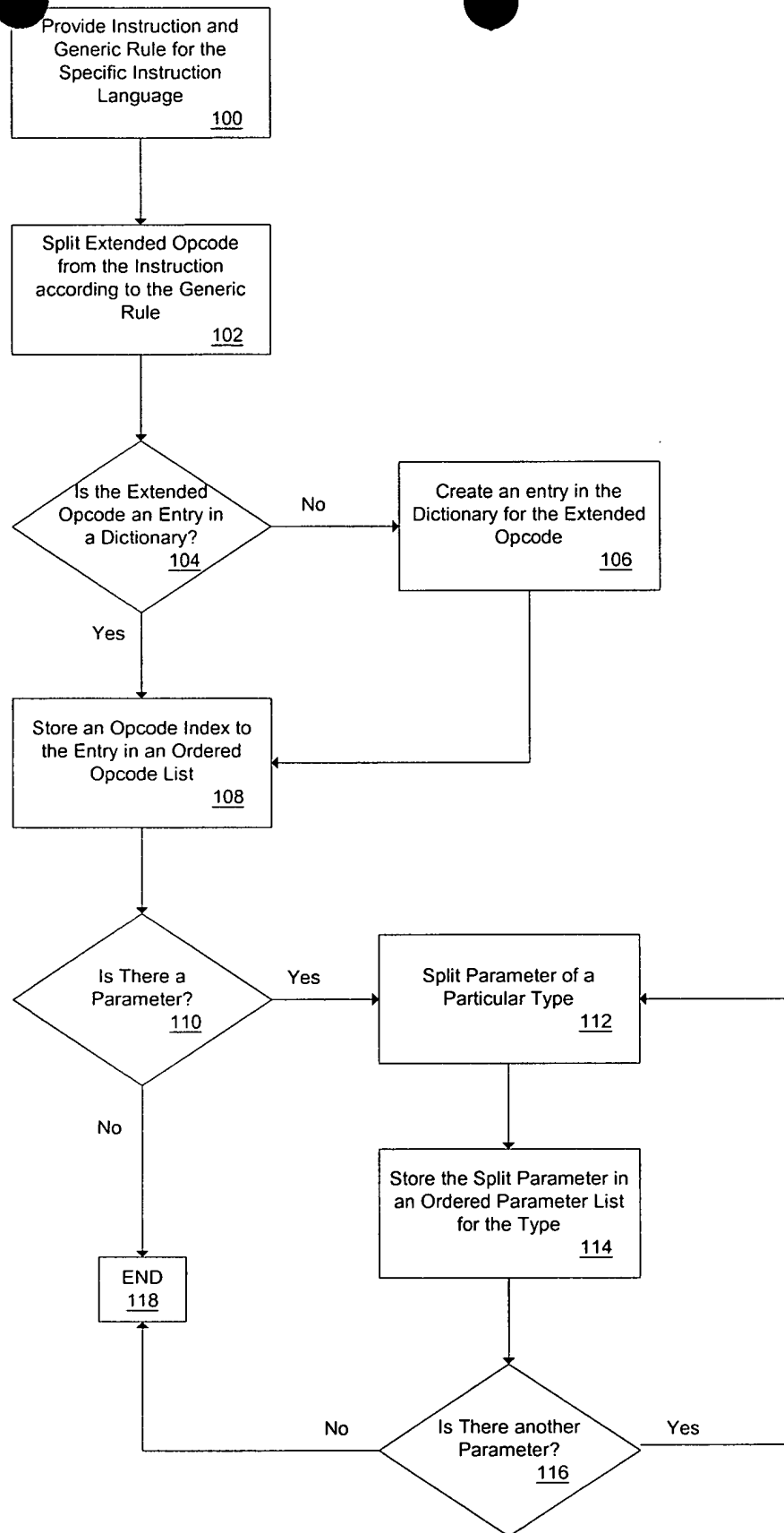


Figure 2A

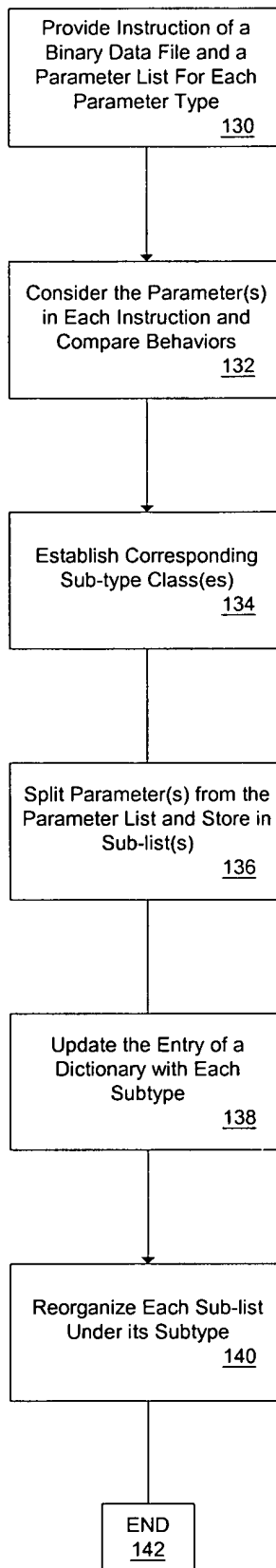


Figure 2B

FIGURE 3A

16					
52	56	58	60	62	64
Entry (Index)	Prefix	OpCode	ModR/M	Parameter Type	Analysis Data
1		01		Imm1, Offset 4, SIB	
2		02		Imm1, Offset 4, SIB	
3	0 x 64	02	0x6E	Imm1, Offset 2	
4	0 x 64, 0 x 66	02	0x6E	Imm1, Offset 2	
5		01	0x6E	Imm2, Offset 4	

64

FIGURE 3B

72	74	76	22
INDEX	EXTENDED OPCODE	PARAMETER LIST INDEX	
1	01	1, 7, 9	
2	02	1, 7, 9	
3	64, 02, 6E	1, 6	
4	64, 66, 02, 6E	1, 6	
5	01, 6E	2, 7	

FIGURE 3C

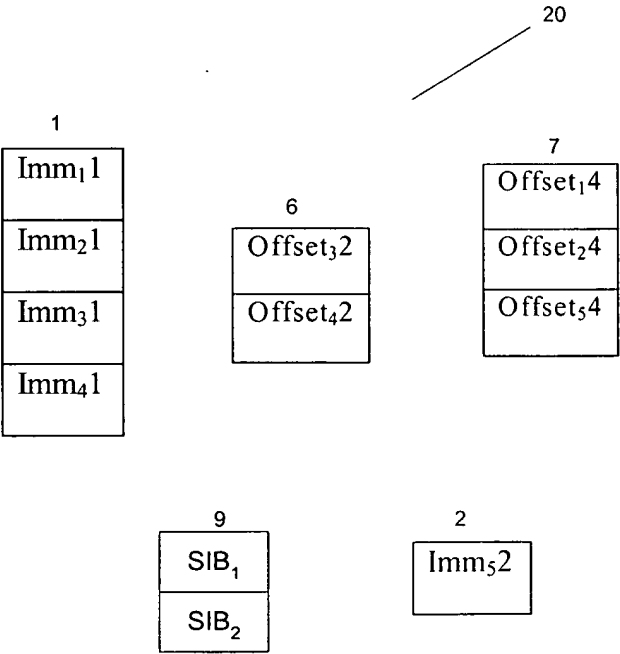


FIGURE 4

INSTRUCTIONS
200

	OpcodeA	Imm _A ¹	Off _A ²
	OpcodeB	Imm _B ²	
	OpcodeC	Imm _C ²	Off _C ²
Pref A	OpcodeD	Off _D ⁴	Off _D ²
	OpcodeA	Imm _E ¹	Off _E ²

DICTIONARY

204

Extended Opcode

Parameter

1
2
3
4

OpcA
OpcB
OpcC
PrefA OpcD

Imm1, Off2
Imm2
Imm2, Off2
Off4, Off2

CRUSHING UNIT

206

1
2
3
4
1

208

ImmA1
ImmE1

208

OffA2
OffC2
OffD2
OffE2

208

OffD4

208

ImmB2
ImmC2

210

210

210

210

210

DICTIONARY

204

Extended Opcode

Parameter

1
2
3
4

OpcA
OpcB
OpcC
PrefA OpcD

I1S1, O2S1
I2S1
O2S2
O4S1, O2S1

212

1
2
3
4
1

I1S1

O4S1

O2S1

O2S2

I2S1

ImmA1
ImmE1

OffD4

OffA2
OffD2
OffE2

OffC2

ImmB2
ImmC2

210

210

210

210

210

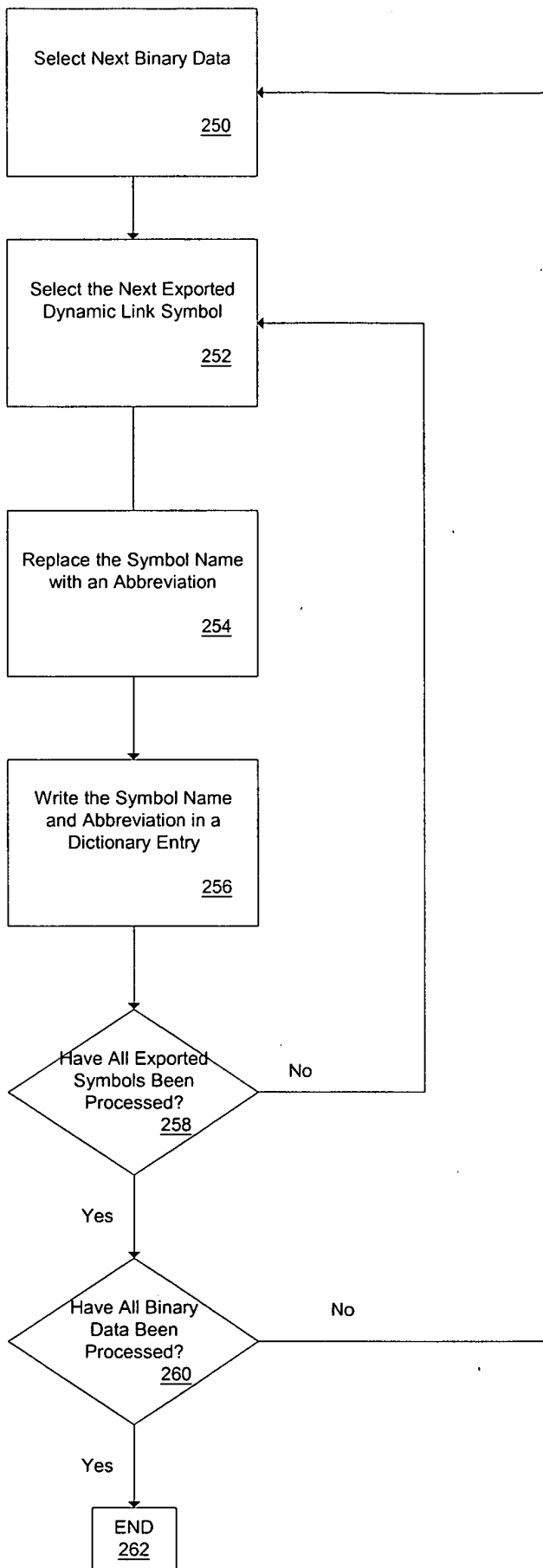


Figure 5A

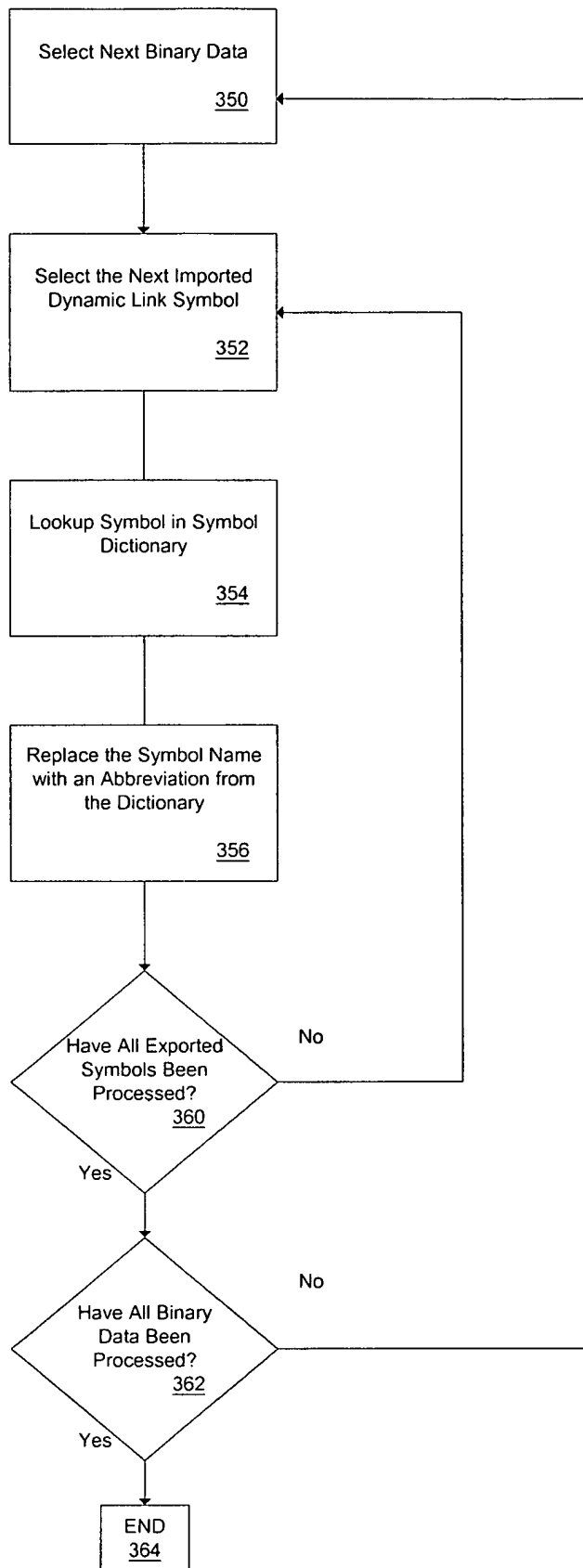


Figure 5B

FIGURE 6

300			
302	304	306	308
Entry (Index)	Symbol Name	Abbreviation	Used?
A	foo	1,1	X
B	void	1,2	X
C	bar	1,3	
D	fed	1,4	
E	main	1,5	X

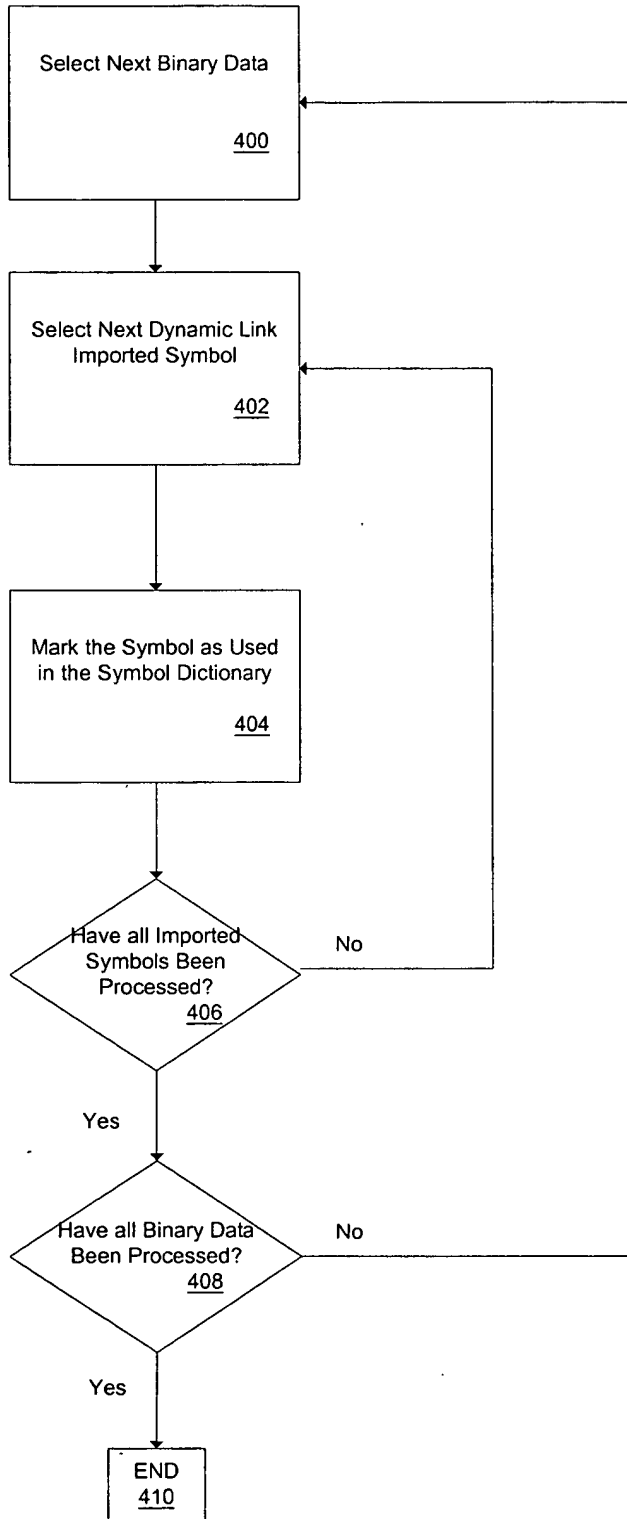


Figure 7A

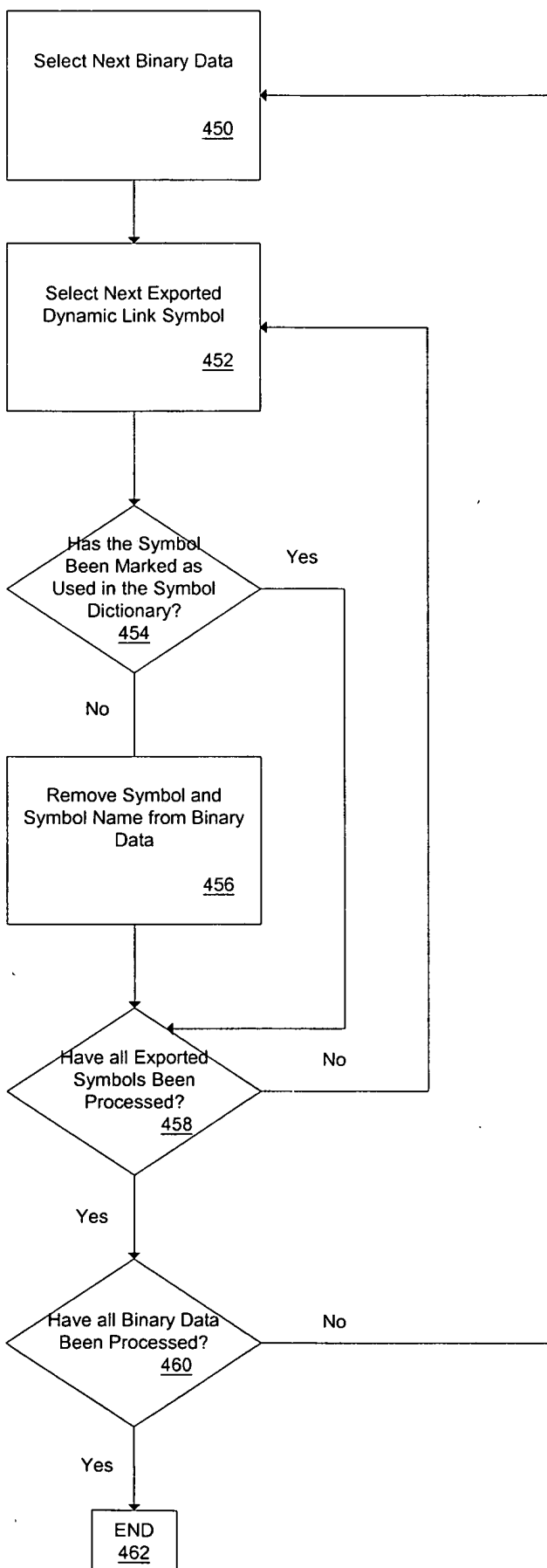


Figure 7B

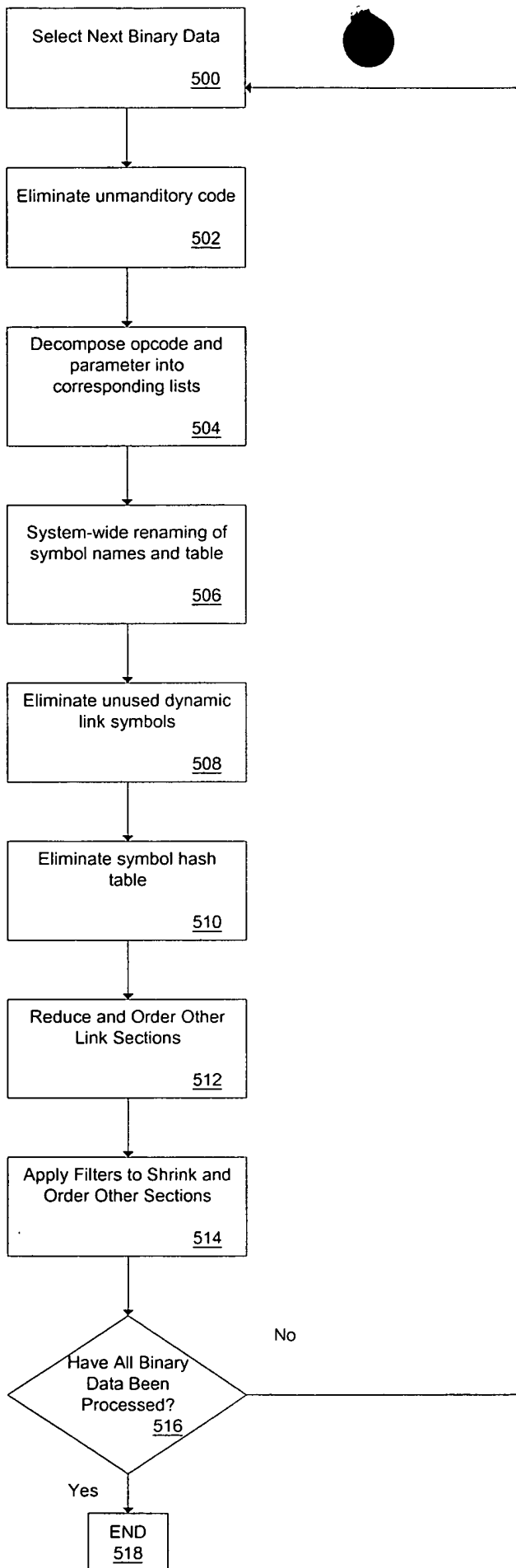


Figure 8

FIG. 9 is a block diagram of a machine-readable medium 600. The machine-readable medium 600 includes an operating system (OS) 620, a processing routine 602, a block management routine 612, and a storage routine 614. The processing routine 602 includes a decomposition module 604, a renaming module 608, an analysis module 606, and an elimination module 610. The block management routine 612 is connected to the processing routine 602 and the storage routine 614. The storage routine 614 is connected to the block management routine 612.

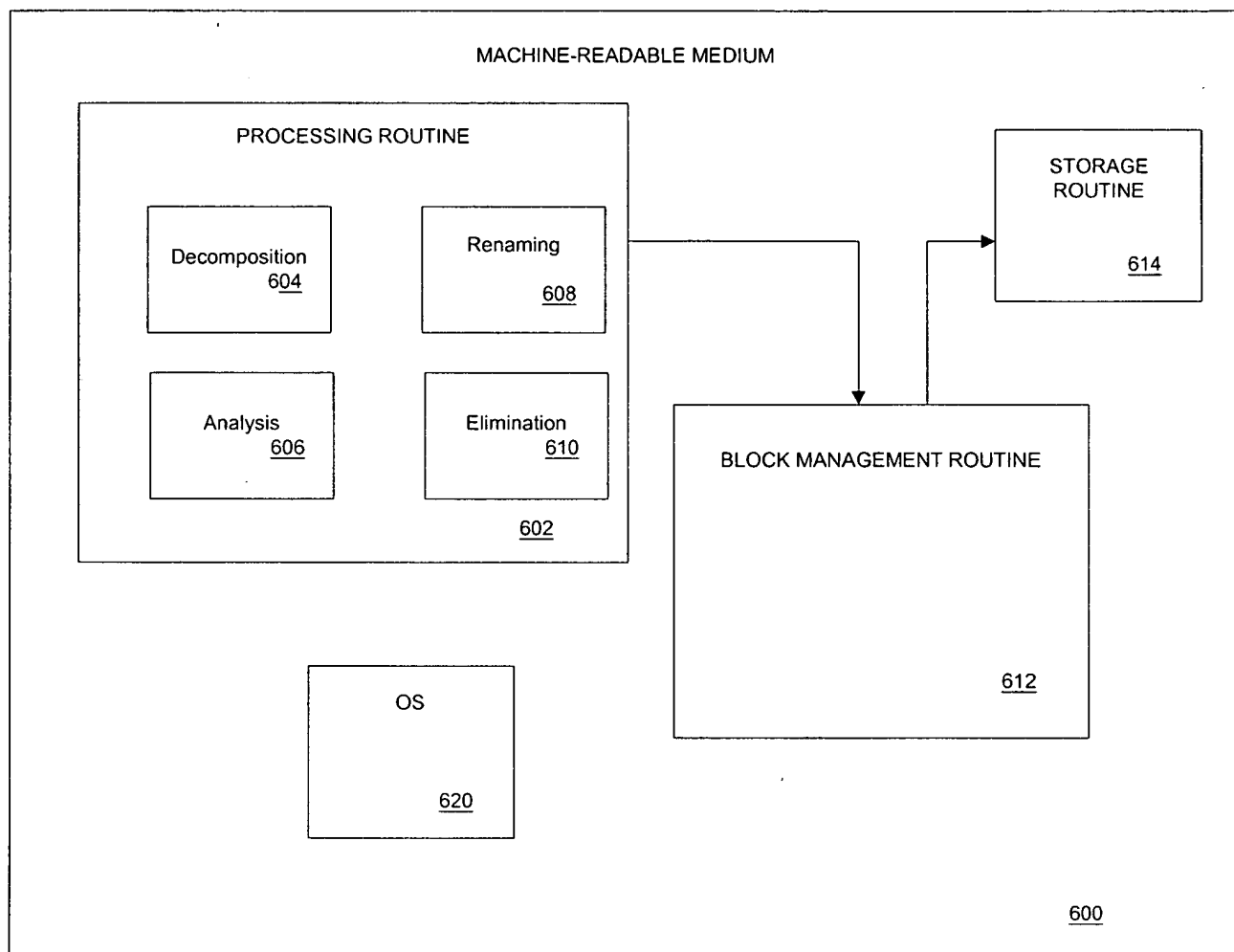


FIGURE 9